

## **Reducing On-Road Risks for Young Drivers, before Licensure and Beyond: Situation Awareness Fast Tracking Including Identifying Escape Routes (SAFER)**

Bridie Scott-Parker<sup>a,b,c</sup>, Leigh Wilks<sup>a,b,c</sup>, Bonnie Huang<sup>a,b,c</sup>

<sup>a</sup>Adolescent Risk Research Unit, Sunshine Coast Mind and Neuroscience – Thompson Institute; <sup>b</sup>School of Social Sciences, Faculty of Arts, Business, and Law, University of the Sunshine Coast, <sup>c</sup>Sustainability Research Centre, University of the Sunshine Coast

### **Abstract**

Around the world, young drivers remain at greatest risk of being injured in a car crash during the earliest period of independent driving. To accelerate driving skill acquisition and thus to reduce car crash risk, Situation Awareness Fast Tracking including identifying Escape Routes (SAFER), is a pre-Learner intervention for parents to teach situation awareness skills (SAS) and escape route skills (ERS) to their teen even before they are licensed, and to continue this teaching style throughout the learner phase. SAS and ERS of 60 parent-teen dyads randomly assigned to intervention or control is currently being analysed and will be reported.

### **Background**

To mitigate young driver crash risks during the earliest period of independent driving, Australian states and territories require young novice drivers to progress through a graduated driver licensing (GDL) program starting with mandatory reportable practice requirements during a learner phase before a provisional (restricted/independent) licence phase (Scott-Parker & Rune, 2016). It has been suggested, however, that road safety benefits arising from GDL may have plateaued (Williams, 2011). Recent driver training research recognises that driver learning and training should proceed through sequenced stages of increasing complexity, culminating in higher order instruction which can accelerate acquisition of situation awareness skills (SAS). While SAS in which drivers perceive, understand and project risks associated with driving hazards take time to develop in the novice driver (Deery, 1999), a recent pilot study by the first author revealed the acquisition of SAS can occur even before the teen gains a license, suggesting the utility of a SAS-acquisition acceleration program that could benefit all young novice drivers. Additionally, the role of escape route skills (ERS) in which young drivers actively seek safe routes of passage that can be taken in the event of an emergency remains unknown as it is absent in current curriculum. While some domains of safe driving research consider the role of ERS (Kaplan & Prato, 2016; Yan, Harb & Radwan, 2008), it is often overlooked or is an assumed aspect of SA. Therefore, our pilot program included ERS as a separate measureable construct.

### **Method**

Sixty parent/pre-learner dyads were randomly allocated to intervention (n=30) and control conditions. As part of a larger project currently underway, SAS and ERS was/will be measured via simulator-based verbal commentary protocol at baseline (dyads recruited 4-6 months before anticipated learner licensure), at learner licensure, after six months of learner licensure, and at provisional licensure. The intervention educated parents regarding SAS and ERS and an engaging manner in which to teach SAS to their teen, a technique that should continue through the learner license phase.

### **Results**

Data collection and analysis is currently underway and the pre-learner and learner study findings are expected to be presented at the conference. Process and impact implications for a larger, more-

representative evaluation of SAFER will also briefly be presented. Based on participant (parent) feedback, improvement in parent SAS and ERS is also anticipated.

## Conclusion

While the initial pilot study revealed it is possible to teach SAS and ERS to pre-licence teens, the current, larger, longitudinal pilot study operationalising random allocation will reveal (a) if it is possible to teach parents how to accelerate the acquisition of robust SAS in their novice driver child, (b) if young novice drivers are able to fast-track acquisition of robust SAS from their parent(s)'s instruction, (c) if young novice drivers develop skills in identifying escape routes, and (d) the impact of SAS and ERS strengths and deficits upon traffic offences and road crashes during the novice license phases. Moreover, any 'upward' education benefits will also become apparent as the evaluation will compare the SAS and ERS of parents in intervention and control groups, with preliminary feedback suggesting broader road safety benefits as a result of targeting the wicked global problem of young driver road safety.

## References

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